

ART. VIII.—*Case of Fracture at Base of Cranium, with discharge from external ear of a portion of the substance of the brain, of watery matter, and of blood in large quantities; Recovery.* By JOHN A. LOCKWOOD, M.D., Surgeon U. S. Navy. (Communicated by W. Whelan, M.D., Chief Bureau Med. and Surg. U. S. N.)

JOHN SMITH, third ordinary seaman, aged 30, on the 19th September, 1855, on board the U. S. ship *Constellation*, at sea, fell from the spar to the main deck, down the fore-hatchway, striking plumply upon the crown of the head. When examined, there existed insensibility, a very feeble pulse, foaming at the mouth, stertorous breathing, copious flow of blood from right ear, and hence from the nose. Three hours subsequently the pulse had rallied; he was capable of being aroused; no epistaxis; bleeding from ear diminished; a small quantity of brain had come away with the blood from right ear. The amount of blood which escaped from the ear during the first hours was very considerable, estimated at fifty or sixty ounces. Cut cups depressed the pulse; a stimulating injection was retained for several hours, acting freely when consciousness was restored. During the night discharge of blood and serum continuous, and comparatively moderate. Reposed quietly.

September 20. Inclined to be comatose; aroused with some difficulty. Moderate discharge of serum or watery matter, coloured with blood. Small particles of brain taken from the meatus, and carefully examined by Assistant Surgeon Wyatt M. Brown and myself.

21st. Disposed to sleep. When not asleep, restless, and wishes to walk about; wants his grog; no lack of muscular power; mind wandering; complains at times of pain in head; pulse natural; coloured discharge as before.

22d. Intellect clearer; more headache; discharge continuous, but no longer discoloured.

23d. Mind quite clear; during night renewed discharge of blood from ear and nose.

24th. Violent pain across the forehead; watery discharge.

25th. Severe suffering from headache during the night; this morning succeeded by a sense of fulness; watery discharge as before.

26th. Less pain; sense of fulness instead; watery discharge as before.

October 23. Returned to duty. Still complains of a ringing in the ears, and a sensation described as a "stoppage in the head." He is quite robust, and otherwise in good health. The watery discharge from the ear did not entirely cease for nearly a month. At one time it was sufficiently copious to wet disagreeably during sleep his pillow, and necessitated plugging the

orifice of the ear before going to bed. For a short period the discharge was yellowish, and of an offensive odour, probably from an internal abscess.

Agreeably to Smith's own statement, he had been epileptic since 1850. He had experienced two attacks since joining the ship, seven weeks before the accident, and it was on the incursion of a third that he fell through the hatchway. After the injury, he escaped with a single fit during the succeeding three months. The following spring, he was discharged the navy, and I have not been able to trace his further history.

The diagnosis in this case I regard as unmistakable. The very copious flow of blood from the ear, the discharge by the same outlet of watery matter, and of a portion of the substance of the brain itself, proves that a fracture of the skull at its base (produced by a *contre-coup*, when the full force of the fall was sustained by the vertex), had involved the petrous portion of the temporal bone.

Surgical writers are agreed in ascribing the gravest prognosis to this injury, when accompanied by a watery discharge. (RANKING'S *Abstract*, vols. ii. and iii.) Robert, one of the authorities on this subject, declares it to be a fatal symptom. Ericson mentions a single case of recovery. I am not aware of any such result being on record, where a portion of the substance of the brain escaped by the external ear.

ART. IX.—*Modified Extension Apparatus for Fractures of the Leg.*¹

By ALONZO CHAPIN, M. D., Member of the Massachusetts Medical Society.

SOME fifteen years ago I was called to attend a man in the country, who had fallen with a scaffolding and broken both bones of the leg—the tibia and fibula. The fracture of both was oblique, and the management required a considerable extending force to bring the bones into coaptation, and to keep them there. The man was irritable, too, and impatient and troublesome to control. As is often the case with country practitioners, it was necessary to extemporize an arrangement which would suit the case. Desault's extension splint did not suit me for a model. The counter-extending force being dependent on a single perineal strap, gives an oblique inclination to the pelvis, does not act in a line of the axis of the limb, allows of more rotary motion of the foot than is sometimes admissible or

¹ This apparatus was exhibited to the members of the Middlesex East Medical Society at its meeting in March, 1858, and afterwards presented to the consideration of the Fellows of the Massachusetts Medical Society at its annual meeting held in Boston in the month of May following.